CANopen Series Products

CANopen Library for PISO-CAN/PEX-CAN/PCM-CAN

PISO-CAN/PEX-CAN/PCM-CAN
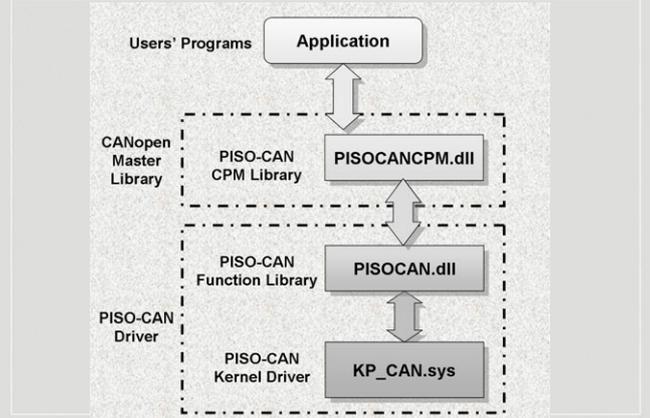
Library Structure

In order to apply the CANopen protocol on the PISO-CAN series card easily, we provides the CANopen application tools, which are CANopen library and CANopen diagnosis application tool. If users want to develop an industrial application with CANopen protocol, the CANopen library is very helpful to be applied with the CAN card as the CANopen devices with the features of CANopen protocol. Besides, if the monitor and diagnosis of CANopen message on the CAN network is considered, the CANopen diagnostic application tool can be used to achieve this purpose.

Features

- NMT: Master
- CANopen Version: DS-301 v4.02
- Error Control: Node Guarding / Heartbeat Consumer
- Support EDS file
- Provide Master listen mode
- Support EMCY receiving
- Provide dynamic PDO functions
- Support SYNC protocol
- Transmission type of PDO is supported
- Support SDO download/upload segment protocol
- Driver support Windows NT/2K/XP/Win7

Design Flowchart

Active the PISO-CAN board and port and initialize master

Add the slave which want be controlled to the PISO-CAN slave control list

Start to control these slaves with CANopen protocol (NMT/SDO/PDO…)

Shutdown and close the PISO-CAN board when it will not be used any more

CPMUtility and Demos Features
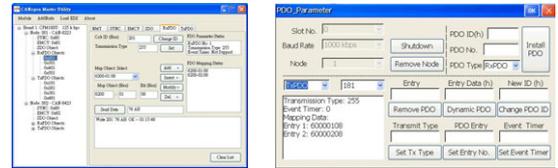
About the CANopen library, we have provided CPMUtility for user to do some simple test. Besides we provide C#/VB.net/VC6/ VB6/OCX demos for users to refer to. In these demos, all functions are used and users can refer these functions to design CANopen application himself. There also has detailed description of step by step with these demos in the fourth section of user manual. Users can develop their program more easily and quickly to follow the demos.

Pin Assignments

CAN_L 2   7 CAN_H
Shied 5

9-pin D-sub male connector

CAN_L 2
Shield 3
CAN_H 4

5-pin Screw terminal connector

Terminal Resister & External Port

Enable

Disable

Terminal Resister

PISO-CAN400

Pin 1: CAN_L
Pin 2: CAN_H
Pin 3: CAN_SHLD
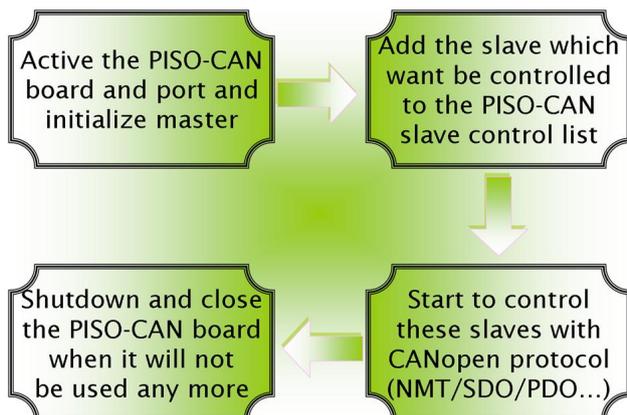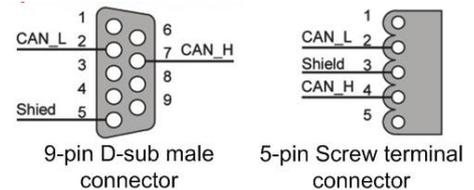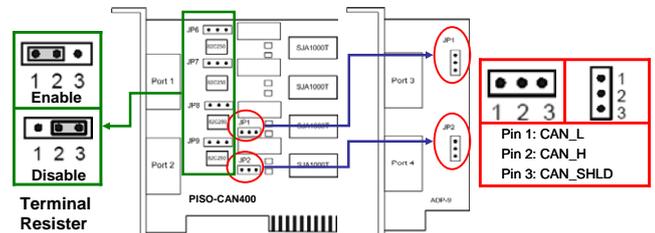
Hardware Specifications

Model Name	PISO-CAN Series	PEX-CAN Series	PCM-CAN Series
Bus Interface			
Type	Universal PCI bus	X1 PCI Express	PCI-104, PC/104-Plus
CAN Interface			
Controller	NXP SJA1000T with 16 MHz clock		
Transceiver	NXP 82C250		
Channel number	1 ~ 8		
Connector	5-pin screwed terminal block (N/A ,CAN_L, CAN_SHLD, CAN_H, N/A) 9-pin male D-Sub (CAN_L, CAN_SHLD, CAN_H, N/A for others) Female DB-37		
Baud Rate (bps)	10 k, 20 k, 50 k, 125 k, 250 k, 500 k, 800 k, 1 M (allow user-defined baud rate)		
Isolation	3000 V_{DC} for DC-to-DC, 2500 Vrms for photo-couple		
Terminator Resistor	Jumper for 120 Ω terminator resistor		
Software			
Driver	Windows/NT/2K/XP/Win7.		
Library	C#, VB.net, VB6.0, VC6.0, OXC.		
Environment			
Operating Temp.	0 ~ 60 ℃		
Storage Temp.	-20 ~ 70 ℃		
Humidity	5 ~ 85% RH, non-condensing		

Applications
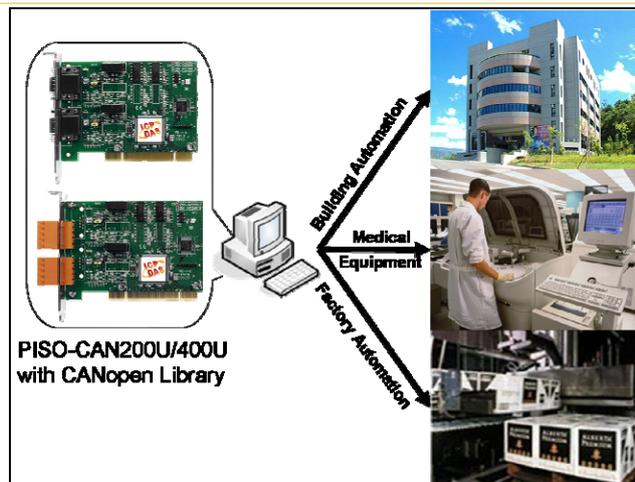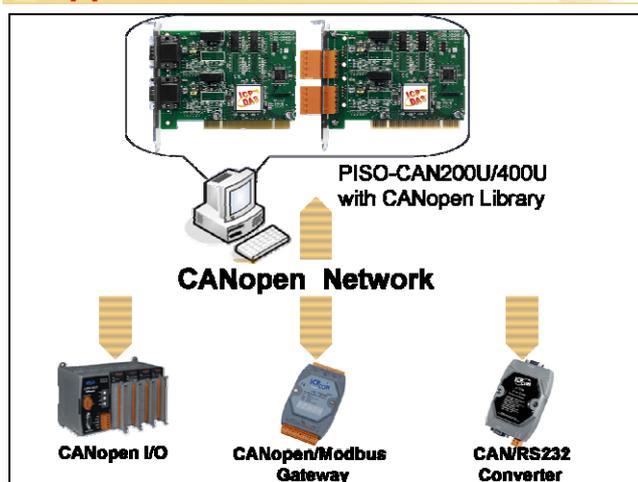
Ordering Information

PISO-CAN100U- D/T	PCI bus, 1-Port CAN card with - 9-pin D-sub/5-pin screw terminal connector.
PISO-CAN200U- D/T	PCI bus, 2-Port CAN card with - 9-pin D-sub/5-pin screw terminal connector.
PISO-CAN400U- D/T	PCI bus, 2-port CAN card and 2-port ADP-9-D (expansion daughter board). All CAN connectors are 9-pin D-sub or 5-pin screw terminal connector.
PISO-CAN800U-D	PCI bus, 8-port CAN card and one CA-4037W and two CA-4002 connectors.
PEX-CAN200i- D/T	X1 PCI Express, 2-port CAN card with - 9-pin D-sub/5-pin screw terminal connector.
PCM-CAN100-D	PCI-104 bus, 1-Port CAN card with 9-pin D-sub.
PCM-CAN200-D	PCI-104 bus, 2-Port CAN card with 9-pin D-sub.
PCM-CAN200P-D	PC/104 Plus bus, 2-Port CAN card with 9-pin D-sub.

ADP-9-D	2-port CAN expansion daughter board with D-sub 9-pin connectors.
ADP-9-T	2-port CAN expansion daughter board with screwed terminal connectors.
CA-4002	37-pin Male D-sub connector with plastic cover.
CA-4037W	40-pin flat & D-sub 37-pin Female connector of 24 cm cable.